

(PCT Article 36 and Rule 70)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/010572

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-17 as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1-15 received by this Authority on 20.07.2005 with letter of 20.07.2005
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/5-5/5 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 1
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-15</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-15</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-15</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	Reference is made to the following document:		
	D1: DE 196 54 365 A1 (BEHR GMBH & CO, 70469 STUTTGART, DE) 25 June 1998 (1998-06-25)		
1	INDEPENDENT CLAIM 1		
1.1	<p>Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses (the references between parentheses refer to that document) an oil cooler (abstract) for an internal combustion engine, comprising a support part (16) which can be flanged onto an engine block of the internal combustion engine and supports the oil cooler, the oil cooler being provided with channels (11, 12; 17, 18) for guiding oil and water, one of the channels being an oil cooler bypass channel (17) which connects an oil inlet (9) of the oil cooler to an oil outlet (9') of the oil cooler.</p> <p>The subject matter of claim 1 thus differs from that known from D1 in that at least the major part</p>		

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>of the length of the oil cooler bypass channel (17) extends through an oil cooler base plate which seals the oil cooler on the support side and extends on the oil cooler side through the remaining part of the oil cooler.</p> <p>The subject matter of claim 1 is thus novel (PCT Article 33(2)).</p> <p>1.2 The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:</p> <p>Document D1 discloses an oil cooler bypass channel, at least the major part of the length of which extends through an intermediate plate (14) sealingly arranged between the oil cooler and the support part (16).</p> <p>The application addresses the problem of producing an oil cooler with few individual parts. The concept of integrating the oil cooler bypass channel in an oil cooler base plate reduces the number of oil cooler plates, since the intermediate plate is no longer needed.</p> <p>In order to integrate the oil cooler bypass channel in an oil cooler base plate, research is necessary in order to determine the geometry of the bypass channel in the oil cooler base plate and in the support part and in order to guarantee</p>

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	<p>sealing with the support part.</p> <p>A person skilled in the art familiar with document D1 would therefore not arrive at the subject matter of the first claim without thereby being inventive.</p> <p>2      DEPENDENT CLAIMS</p> <p>Claims 2 to 13 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.</p>

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**Box No. VII**      **Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Contrary to PCT Rule 5.1(a)(ii), the description does not cite document D1 or indicate the relevant prior art disclosed therein.

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

**Box I****Basis of the report**

The amendments submitted with the letter of 20 July 2005 introduce substantive matter which, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed. The amendments concern the base plate of the oil cooler. In the original application, the oil cooler is sealed by said plate on the support side. Nowhere in the original application is it stated that said plate forms part of the oil cooler. The drawings also depict a separate oil cooler base plate. The amended claim, however, mentions "...an oil cooler base plate which forms part of the oil cooler...". This also covers the fact of the oil cooler base plate and the oil cooler being made together from one part (e.g. by milling from a whole piece), which, as has already been mentioned, is not covered by the original application.